

## IN THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

1. (Currently amended) A method comprising:  
  
evaluating one or more source characters ~~using a lookup table to determine whether each character will invert or maintain a current~~ an intermediate running disparity for each of the one or more source characters; and  
  
determining a running disparity for each of the one or more source characters before encoding the one or more source characters based on ~~the a~~ a current running disparity associated with the one or more source characters and ~~whether the character will invert or maintain the current~~ intermediate running disparity of each of the one or more source characters.
2. (Currently amended) The method of claim 1, wherein evaluating the one or more source characters comprises evaluating each of the one or more source characters to determine a flip/hold bit based on whether ~~the a~~ a respective source character will invert or maintain ~~a~~ the current running disparity.

3. (Currently amended) The method of claim 2, wherein determining ~~a~~the running disparity for each of the one or more source characters comprises comparing the flip/hold bit of ~~each~~ the respective source character with the current running disparity.
4. (Currently amended) The method of claim 3, wherein determining ~~a~~the running disparity for each character comprises using an exclusive or (XOR) function to compare the flip/hold bit with the current running disparity.
5. (Canceled).
6. (Currently amended) The method of claim 1, wherein evaluating the one or more source characters comprises using one or more logic gates to determine whether each of the one or more source characters will invert or maintain the current running disparity.
7. (Currently amended) The method of claim 1, further comprising passing the current running disparity, the running disparity of each of the one or more source characters, and ~~along with the associated one or more source characters~~ to

an encoder to encode the one or more source characters into a ~~a~~one or more transmission characters.

8. (Currently amended) A circuit comprising:

a decoder to determine a flip/hold bit for each of a plurality of source characters ~~using a lookup table~~ based on whether a respective source character will invert or maintain a current running disparity associated with the plurality of source characters; and

a comparator coupled to the decoder to compare the flip/hold bit with the current running disparity to determine a running disparity for the respective source character before the respective source character is encoded.

9. (Original) The circuit of claim 8, wherein the comparator comprises one or more exclusive or (XOR) gates.

10. (Original) The circuit of claim 8, wherein the comparator comprises a pre-calculator to pre-calculate at least a portion of the running disparity.

11. (Original) The circuit of claim 10, wherein the pre-calculator comprises one or more exclusive or (XOR) gates.

12. (Currently amended) The circuit of claim 8, further comprising an encoder coupled to the comparator to receive the current running disparity, a plurality of running disparities of the plurality of source characters, and the associated plurality of source characters and to encode the plurality of source characters to a plurality of transmission characters.

13. (Original) The circuit of claim 12, wherein the encoder is an 8B/10B encoder that does not contain disparity calculation circuitry.

14. (Currently amended) An apparatus comprising:  
means for evaluating one or more source characters to determine an intermediate running disparity for each of the one or more source characters a flip/hold bit based on whether each source character will invert or maintain a current running disparity, wherein the means for evaluating the one or more source characters comprises one or more lookup tables; and  
means for ~~comparing the flip/hold bit of each source character with the current running disparity to determine a running disparity for each source character~~ determining a running disparity for each of the one or more source characters based on a current running disparity associated with the one or more

source characters and the intermediate running disparity of each of the one or more source characters before the source character is encoded.

15. (Currently amended) The apparatus of claim 14, wherein the means for determining the running disparity for each of the one or more source characters comprises means for comparing the a flip/hold bit with the current running disparity ~~comprises one or more exclusive or (XOR) gates.~~
16. (Currently amended) The apparatus of claim 14, wherein the means for ~~comparing the flip/hold bit with the current running disparity~~ determining the running disparity for each of the one or more source characters comprises means for pre-calculating at least a portion of the running disparity.
17. (Canceled).
18. (Original) The apparatus of claim 14, wherein the means for evaluating the one or more source characters comprises one or more logic gates to determine whether each source character will invert or maintain the current running disparity.

19. (Currently amended) The apparatus of claim 14, further comprising an encoder coupled to the ~~comparing means~~ for determining the running disparity for each of the one or more source characters to receive the current running disparity, the running disparity for each of the one or more source characters, and the ~~associated one or more source characters~~ and to encode the one or more source characters to a one or more transmission characters.
20. (Original) The apparatus of claim 19, wherein the encoder is an 8B/10B encoder that does not contain disparity calculation circuitry.
21. (New) The method of claim 1, wherein evaluating the one or more source characters comprises using a lookup table to determine whether each of the one or more source characters will invert or maintain the current running disparity.